DOCUMENT RESUME

ED 054 998 SO 001 842

AUTHOR Haavelsrud, Magnus

TITLE Development of Concepts Related to Peace and War: An International Perspective.

INSTITUTION Washington Univ., Seattle. Coll. of Education.

PUB DATE 7 Sep 71

NOTE 25p.; Paper presented at Annual Conference, American Psychological Association, Washington, D.C., September 7, 1971

EDRS PRICE MF-$0.65 HC-$3.29

DESCRIPTORS *Childhood Attitudes; *Communications; Concept Formation; *Mass Media; Political Attitudes; *Political Socialization; Research Projects; *Socialization; Student Attitudes

IDENTIFIERS Peace; *War

ABSTRACT

This paper reports the author's research on the relative impact of various communication structures, particularly the mass media, on the formation of attitudes regarding war and peace, and the relationship of these source ratings to age and sex. The sample consisted of 611 randomly selected public school students from grades 5, 7, 10, and 12 in Vancouver, Canada. Methodology involved the administration of a series of open-ended questions measuring the individual's orientations to several different war-peace concepts, and the amount of influence each of a variety of potential sources had on each orientation. Six-point scales were utilized to examine the influence of: family members, friends, home TV, radio, newspapers, magazines, books, movies, teachers, textbooks, school movies, school TV, minister, and content of religion. Among other findings reported were: 1) ratings of the utility of various sources tend to differ mainly between the concepts of the word war and the causes of war, on the one hand, and the remaining concepts on the other; 2) TV at home has the highest utility for all concepts; and, 3) in the upper grades, TV at home is only of secondary importance for several concepts, magazines and newspapers assuming greater influence. The author states that there is a need for further research on why certain sources are of more utility than others for certain orientations. (JLB)

ED054998

U.S. DEPARTMENT OF HEALTH, EDUCATION, & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

DEVELOPMENT OF CONCEPTS RELATED TO PEACE AND WAR: AN INTERNATIONAL PERSPECTIVE

by

Magnus Haavelsrud

College of Education

University of Washington

Seattle, Washington 98105

and

International Peace Research Institute

P. O. Box 5052, Oslo 3, Norway

Sp 001 842

Paper presented at the annual convention of the

American Psychological Association

Washington, D.C.

September 7, 1971

*The Council for Conflict and Peace Research, Norway, gave financial support to the research reported in this paper. Thanks are extended to Dr. Alan A. Klockars, University of Washington for valuable advice in the analysis of data and to Greg Woodman, Computer Center, University of Washington for assistance in computer programming.

Introduction

Pre-adults in England, Germany, and Japan show an increment with age in responses concerned with negative effects of war on people, whereas preadults in Norway show a decreasing tendency with age to render such responses.[1] One might attribute this disparity to the difference in communication structure in the four countries. It is reasonable to expect that more subjects in the English, Japanese and German samples have been exposed to more information about air attacks, bombing and actual warfare with all its negative consequences than have Norwegian children. Previous research points out that friends, family, school, mass media and religion have varying degrees of utility in the formation of orientations to international objects such as peace and war.[2] It is anticipated that some of the variance can be attributed to the cultural context, e.g. the historical and current setting for the communication as well as the nature of the content transmitted through various channels. The presence or absence of particular channels in a given social system, especially mass media, would be an important dimension to take into account when explaining the etiology of war-peace concepts cross-nationally.

Recent research on the impact of the communication structure in the formation of war-peace orientations suggests that mass media is the primary source among high-school students in an urban setting in the United States. Among the mass media, TV, newspapers, and magazines are apparently of greater utility than books, radio, and movies in theaters. The influence of the peer group is second in importance to mass media. Experiences gained at school are third in degree of utility. Teachers

seem to provide the most impact on student orientations, with textbooks assuming secondary importance, whereas TV and movies in school are generally low on the utility dimension. Family members rank fourth as agents of international socialization, with an equal rating for father, mother, and others in the family. Religion is definitely the source of least influence in the process of acquiring the orientations measured.[3] These results are supported by Hollander who investigated source utility as related to war in general and the war in Vietnam specifically. He did not probe peace concepts.[4] Results from a recent study conducted among adolescents in Seattle support the above findings. Mass media was generally cited more frequently than any other source category for transnational as well as national orientations. Within the mass media category, "television was the most frequently cited medium, with newscasts being selected as the primary content area."[5] Documentaries on television played a secondary role in this connection. School sources, friends, family, and religion followed according to priority.[6]

The above discussions of recent research in the area of socialization agents manifests at least two factors which limit the generalization of findings: (1) the subjects were all high-school students and; (2) the three studies were all conducted in one cultural setting. Although investigations have been conducted in other settings and among other age groups, replicatory studies focusing on the effect of communication structure in different cultural climates are non-existant as far as war-peace concepts are concerned.

Several models of the processes of international socialization have been suggested, e.g. the accumulation model, the role transfer model,

the identification model and the cognitive-development model.[7] These models deal with the informational environment as a causal factor to one degree or another. Nevertheless, no model exists that focuses explicitly on this variable on a cross-national basis. One might expect this factor to vary more from one nation to another than a factor such as cognitive development. Hence it is viewed as important to gain insight about the effect of communication in diverse societies.

The present investigation is a replication of the author's Seattle study, although in the latter, data were collected among high-school students only. The purpose of this paper is to assess the relative impact of various sources on war-peace concepts among public school students from grades 5, 7, 10, and 12 in Vancouver, Canada and to relate findings to sex and grade (age). Furthermore, the intention is to arrive at a war-peace informational utility model. A comparative analysis of results from the two studies will be reported on at a later date.[8]

Methodology

The research model employed in the present study has been reported on previously.[9] Hence only a short summary of the methodology used will be given. The instrument consists of ten pages. Each page contains (1) questions to measure the individual's orientations to concepts related to war/peace and (2) devices to assess the value of sources as they affected that orientation. It was decided that the inclusion of devices to assess source utility ought to be postponed until all the "orientations" for concepts had been identified. In this way, the orientations identified would not be influenced by the process of judging the value of sources (the latter were hidden by a cover sheet until all the "orientation questions" had been answered). The utility of a source is assessed by having the subjects indicate on a six-point scale the amount of influence each of a variety of potential sources has had on the respondent as he or she learned the answers to the questions on that page. The sixteen scales are randomized on each page in order to minimize set formation.

The orientations to the ten different concepts related to peace and war were measured by asking the following open-ended questions (the abbreviation used later in this paper is written in capital letters):

Page 1.	What do you think about when you hear the word "war"?	WAR
Page 2.	What do you think about when you hear the word "peace"?	PEACE
Page 3.	What do you think leads to war?	CAUSES OF WAR
Page 4.	What do you think can be done to prevent war?	WAR PREVENTION

Page 5.	Do you think it is right for a country to take part in a war? (Questions about rationale were included)	MORALITY
Page 6.	Do you think it is possible to avoid war? (Questions about rationale were included)	EVITABILITY
Page 7.	Is there anything inside people that causes war? (Questions about rationale were included)	HUMAN NATURE I
Page 8.	You said you believe that there is something inside people that causes war. Do you believe that people are <u>born</u> this way or that people <u>learn</u> these feelings when they grow up? (Questions about rationale were included)	HUMAN NATURE II
Page 9.	You said you believe that there is something inside people that causes war. Do you think people can be changed so that these feelings could be put to peaceful use? (Questions about rationale were included)	HUMAN NATURE III
Page 10.	How much have you learned from each place when you gave your answers to all the questions about peace and war?	OVERALL

The sample in the present study consists of 611 public-school students in Vancouver, B.C. Table 1 shows the distribution of subjects on the grade and sex variables. The sample was drawn according to the following procedure:[10]

1. Six schools were chosen to be the basis of sample selection. Two of these were high schools and four were elementary schools. One of the high schools was located in a higher socioeconomic area than the

other and two elementary schools were located in a higher socioeconomic area than the other two.

2. In those six schools no specific criteria for grouping students are used. Hence, both elementary and secondary classes contain a varied composition of students.

3. A list of classes on the four grade levels was obtained. From this list four classes on each grade level were selected on a random basis. All students in each of these classes were tested.

Since students were not grouped in classes according to any selection criterion and were selected for the sample on the basis of class randomization, it seems reasonable to argue that findings can be generalized to the total population of 5th, 7th, 10th and 12th grade students in the four schools.

Table 1: Distribution of subjects on the grade and sex variables.

Grade	Sex: Boy	Sex: Girl	
5	62	53	115
7	65	87	152
10	84	93	177
12	95	72	167
	306	305	611

The design used in this experiment is that of repeated measurements on trend analysis. Edwards states that this design involves the notion that a single subject corresponds to a "block" in the randomized block design. The purpose of this design is to determine "whether certain characteristics of the trend of the trial means are statistically significant or

whether they can be attributed to random variation."[11] In the present study the trial means refer to the ten means obtained for each of the sixteen sources on a six-point scale. This constitutes the dependent variable and is used in assessing the change in performance over a series of trials under different experimental treatments.[12] The ten treatments refer to the attributes given to ten different concepts related to peace and war (cf. pp. 4-5). This treatment factor constitutes the independent variable. There are two organismic factors apart from the treatment factor. One organismic factor is grade with four levels, viz. 5th, 7th, 10th and 12th grade. The second organismic factor is sex with two levels, viz. boys and girls. The sixteen sources of information are analyzed separately.

Since there are unequal n's in the ten treatment groups, the analysis of variance was computed using treatment means as single observations. The analysis was conducted according to procedures set forth by Edwards.[13] Observations were estimated for twenty-one subjects on pages eight and nine. These subjects answered "no" to the question on page seven pertaining to whether they believed that there is something inside people that causes war. Hence, they were asked to skip pages eight and nine.

Analysis of Data

Analysis of Variance

The analysis of variance of ratings of these sixteen sources are reported on separately in Table 2: (1) three family sources, viz. father, mother, others in family, (2) friends, (3) six mass media sources, viz. TV at home, radio, newspapers, magazines, books and movies in theaters, (4) four school sources, viz. teachers, textbooks, movies in school, and television in school, and (5) religion sources, viz. minister or teacher in church and content of religion. An asterisk denotes that there is a significant difference on the .01 level.

It is obvious from Table 2 that the main treatment effect (concept) accounts for much of the variance. All sources have significant ratings across concepts. Second in importance is the interaction effect of Grade X Concept where twelve sources have received significantly different ratings. The effect of grade (age) is significantly different on ten of the sixteen sources, whereas four of the F-values for sex are significantly different. There is no significant F-value for the interactions Grade X Sex, Sex X Concept, and Grade X Sex X Concept.

In the following, the direction of the significant F-ratios will be analyzed. Duncan's New Multiple Range Test combined with plotting of means will be used for finding significant differences among means for the main effects of grade and concept. The main effects of sex will be apparent by looking at the size of the two means. Interaction effects involving grade will be tested by finding the linear component.

Table 2: Compilation of significant F-ratios (an asterisk signifies a significant difference on the .01 level)

	Grade	Sex	GradexSex	Concept	GradexConcept	SexxConcept	GxSxC
Father				*			
Mother		*		*			
Others in family		*		*			
Friends	*			*	*		
TV (Home)				*	*		
Radio				*	*		
Newspapers	*			*	*		
Magazines	*			*	*		
Books	*			*	*		
Movies (Theaters)	*			*			
Teachers	*			*	*		
Textbooks	*			*	*		
Movies (School)	*			*	*		
TV (School)	*			*	*		
Minister		*		*	*		
Content (Religion)	*	*		*	*		

Main Effect of Concepts

All sixteen sources received significantly different ratings over the ten levels of the treatment variable (concepts). In Figures 1, 2, and 3 eight means for each source have been plotted. The three ratings on pages 7, 8, and 9 of the instrument pertaining to HUMAN NATURE were combined because none of these ratings differed significantly with each other. In addition to the plotting of means, Duncan's New Multiple Range Test was performed in order to locate which means are significantly different from the others ($p < .01$). For simplification purposes the results from this test will not be reported on here in tabular form. They serve as the basis for interpretation of Figures 1, 2, and 3.

It is apparent that subjects tended to view the overall question on page 10 in the instrument as worth a higher rating than the separate parts of this question over the previous pages (on page 10 subjects were asked to rate source utility pertaining to acquiring answers to all questions in the instrument). In the Seattle study an average increase between the sixteen sets was .7. Rather than viewing this discrepancy in ratings as an inconsistency, it is suggested that this consistent higher rating of the scales on page 10 is due to a cumulative effect. That is, the importance of each source in the subject's mind may have been inflated in proportion to the subject's feeling that comprehensiveness suggests greater importance. No consistency measures have been computed on the present data. Nevertheless, the phenomenon described above is similar to the Seattle study in which high internal consistency (reliability) was found.[14] Hence, the 20% of significant comparisons on Duncan's Test involving the overall

rating on page 10 will not be commented on further.

The ratings given to mother, minister and content of religion are significantly higher for PEACE than for WAR (Figure 1). The reverse is the case for all mass media sources (Figure 2) and teachers (Figure 3).

This finding also applies to the Seattle study although father was seen as of more utility in acquiring the concept WAR than other concepts.[15] This suggests another role of the father in the Canadian family as opposed to the American family. The ratings of mother, friends, and the two religion sources tend to be higher for HUMAN NATURE than for WAR. Also, these sources as well as others in family are of greater utility for PEACE than for CAUSES OF WAR. Four sources in Figure 1 have stronger association with PEACE than with MORALITY and EVITABILITY. Friends and the two religion sources have higher ratings for PEACE than for PREVENTION OF WAR. Responses to questions on HUMAN NATURE are acquired to a greater extent from peers, friends and religion, than responses to questions on CAUSES OF WAR and MORALITY.

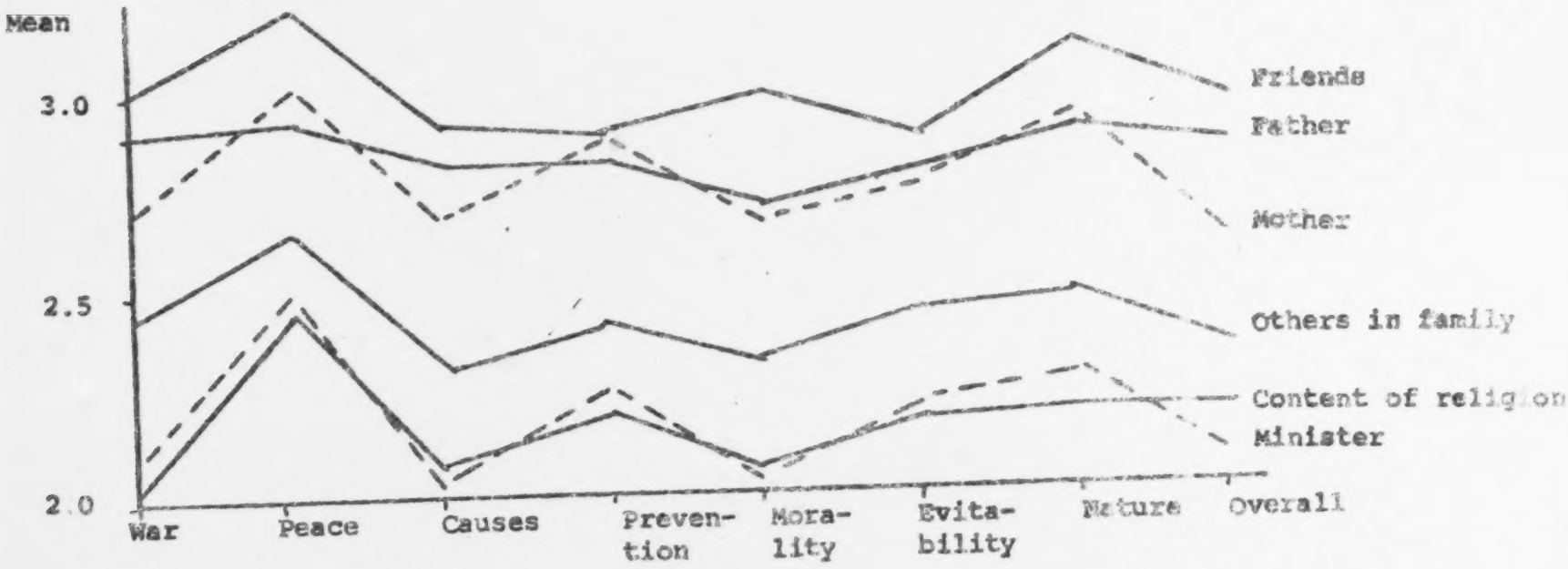

Figure 1: Plotting of Means Across Concepts for School and Religion Sources

The ratings for most mass media sources are higher for WAR than for any of the other concepts (Figure 2). Mass media tend to be of greater utility for CAUSES OF WAR than for PREVENTION OF WAR, MORALITY, EVITABILITY and HUMAN NATURE. For some mass media sources the ratings for PREVENTION OF WAR are lower than ratings for MORALITY and HUMAN NATURE. Likewise, some of the ratings in Figure 2 are higher for MORALITY than for HUMAN NATURE and higher for EVITABILITY than for HUMAN NATURE.

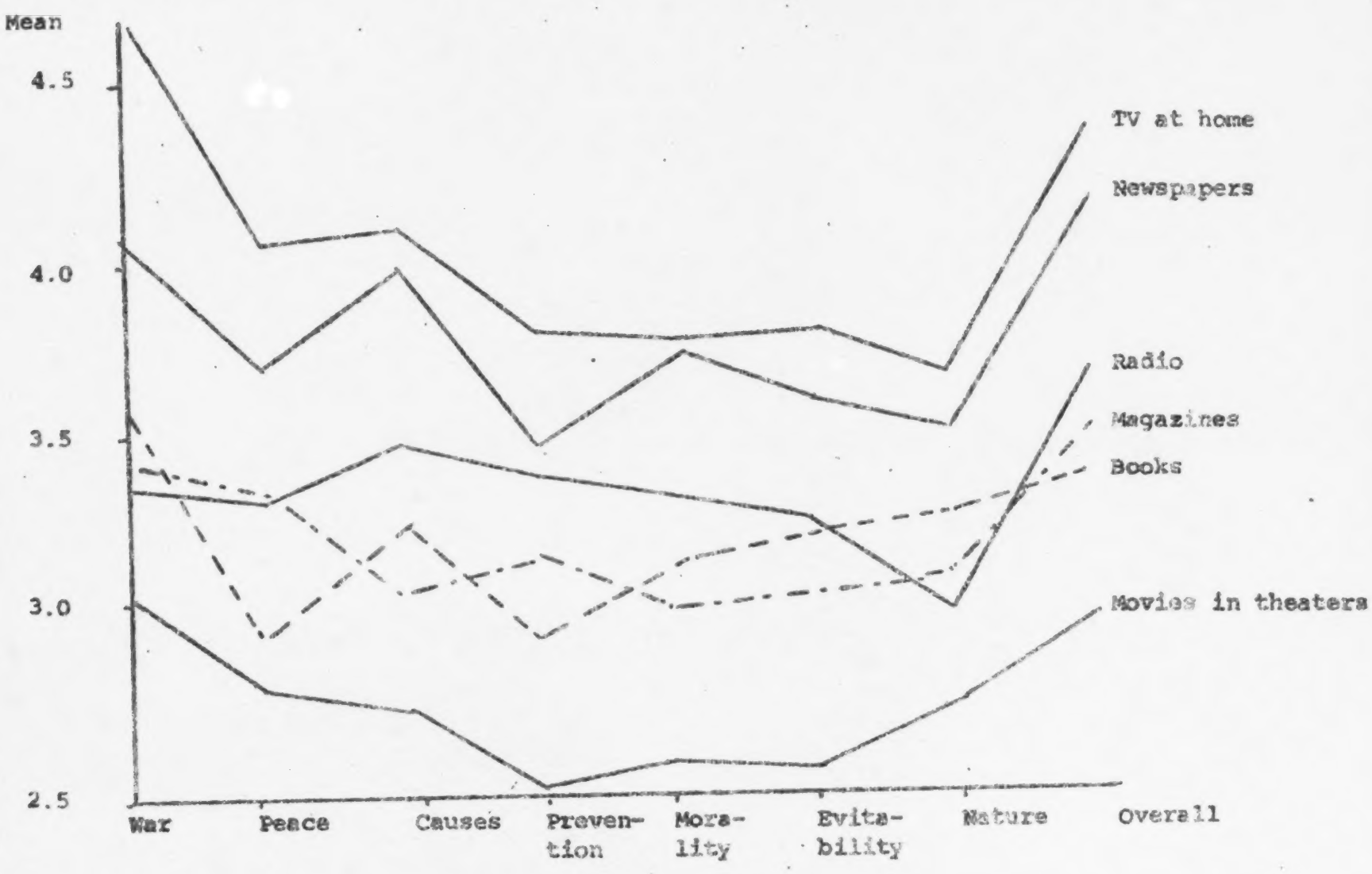

Figure 2: Plotting of Means Across Concepts for Mass Media Sources

Teachers are of more utility for the WAR concept than for PEACE and HUMAN NATURE. Also, CAUSES OF WAR is more associated with teachers and textbooks, than is PEACE. In some cases, the ratings of teachers and textbooks are higher for MORALITY, EVITABILITY and HUMAN NATURE than for PEACE and CAUSES OF WAR.

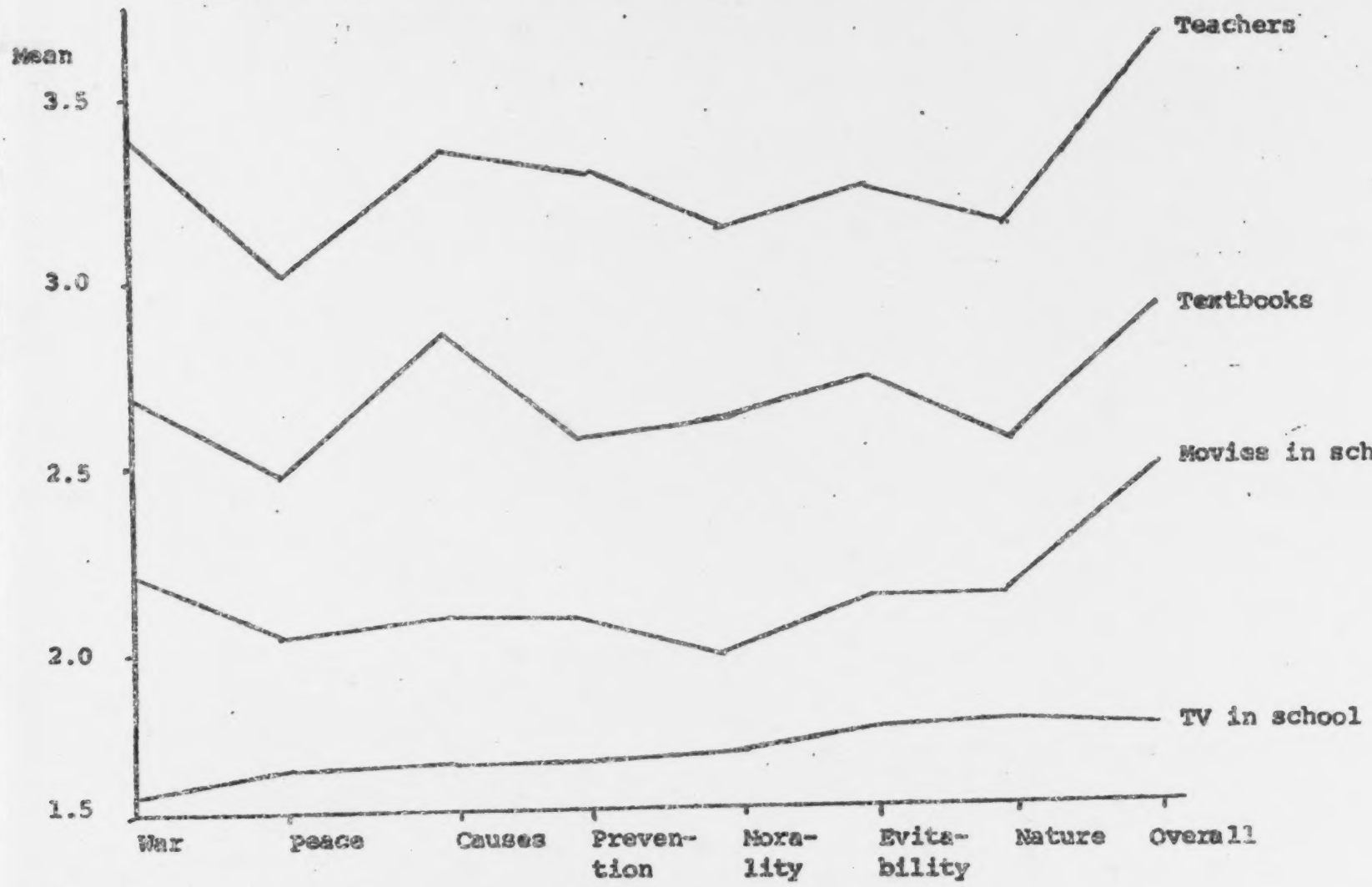

Figure 3: Plotting of Means Across Concepts For School Sources

Taking the average rating for each source over each concept as an indicator for ranking of utility, the following findings apply: a prime source for all concepts is TV at home. The newspaper has the second highest mean ratings. Mean ratings between 2.6 and 3.7 apply to radio books, teachers, magazines, friends, father and mother. Mean ratings

on some of the concepts for the following sources also fall in this range: movies in theaters, textbooks, and others in family. Of least utility for all concepts are movies in school, content of religion, minister or teacher in church and TV at school.

The above conclusions are generally supported by previous research in other developed and industrialized societies. Thus, the main conclusions hold true for the three Seattle studies referred to earlier (cf. page 2). The general conclusion in a study conducted in Norway that children use "sources that capitalize upon receptive activity rather than active participation in talk with other people" seems to hold true for the present study as well.[16] A Swedish study confirms the finding that mass media are attributed the most significance.[17]

Main Effect of Grade

Ten of the sixteen sources of orientation received significantly different ratings on the four grade levels. Table 3 shows the results of Duncan's New Multiple Range Test ($p<.01$). Of the sixty possible combinations in Table 3 (six for each source) thirty-five differ significantly. About half of these differences are obtained when comparing ratings of 5th graders versus ratings of 10th and 12th graders. These eighteen comparisons all show that 5th graders rate the nine sources significantly lower than 10th and 12th graders. The same applies when comparing 7th graders and 12th graders. One comparison (TV in school) shows a lower rating by 7th graders than by 5th graders whereas the obverse is the case for magazines. Comparing ratings of 10th graders and 12th graders only one is significantly different, viz. movies in school. The 10th graders rate this source higher than 12th graders.

Thirty-three of the thirty-five significant comparisons demonstrate that students of lower grades tend to rate the same source significantly lower than students of higher grades. This finding applies to the sources listed in Table 3, viz. friends, four of the six mass media sources, all four school sources, and one of the two sources of religion. One should note that all four print sources (newspapers, magazines, books, school, textbooks), have significantly different ratings across grades reflecting the increase in reading habits with age. Also, it is apparent that the peer group exerts more influence on war-peace concepts throughout a pre-adult's lifespan.

Table 3: Grades 5, 7, and 10 compared with each other and grade 12 (open spaces signify no significant differences--$p<.01$)

	5vs7	5vs10	5vs12	7vs10	7vs12	10vs12
Friends		5<10	5<12	7<10	7<12	
Newspapers		5<10	5<12		7<12	
Magazines	5<7	5<10	5<12	7<10	7<12	
Books		5<10	5<12	7<10	7<12	
Movies in the theaters		5<10	5<12	7<10	7<12	
Teachers		5<10	5<12	7<10		
Textbooks		5<10	5<12	7<10	7<12	
Movies in school		5<10	5<12	7<10		10>12
TV in school	5>7			7<10		
Content in religion		5<10	5<12			

Main Effect of Sex

The overall effect of the sex variable, averaged over grade and concept is significant for two family sources and the two sources of religion (Figure 4). The direction of this difference is the same for all four ratings, viz. boys rate mother, others in family, minister or teacher in church and content of religion significantly lower than girls.

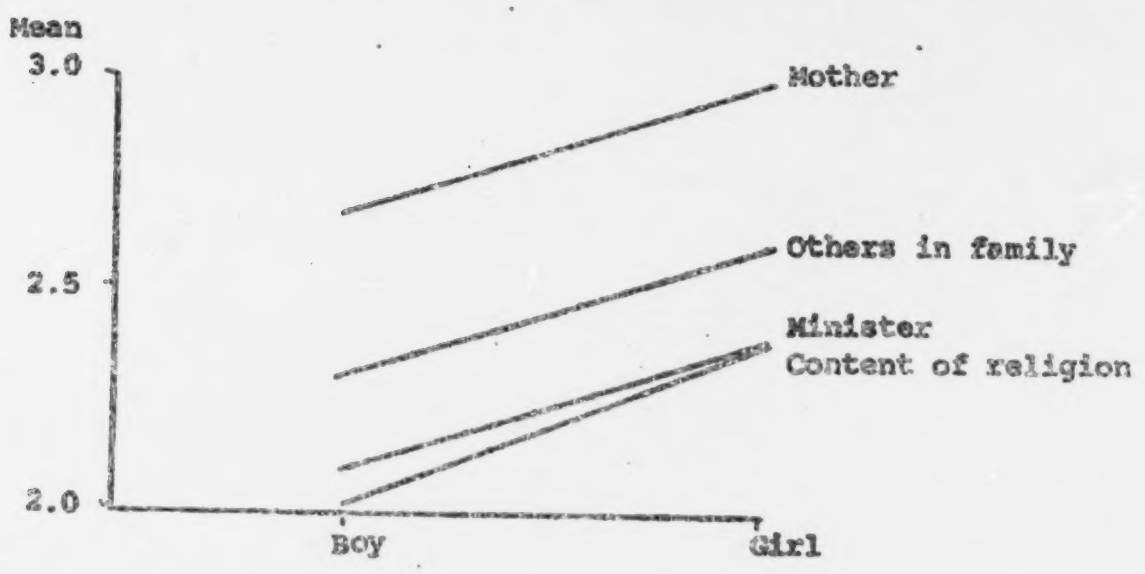

Figure 4: Means of ratings for boys and girls averaged over grades

Analysis of Grade x Concept Interaction

Table 4 shows significant differences in the form of the slope for each of the ten concepts summed over the four grade levels. Apparently, there are significant linear differences in all ratings except one (TV at home).

In Table 5 all D-values used in searching for the linear trend are listed, as well as the sum total of D-values for each source. A positive number indicates an upward trend, and a negative number denotes a downward trend in the linear component. The greater the number, the steeper will be the slope.

Table 4: Significant linear components of the grade x concept interactions (an asterisk signifies significance beyond the .01 level)

Friends	*
TV at home	
Radio	*
Newspapers	*
Magazines	*
Books	*
Movies in theaters	*
Teachers	*
Textbooks	*
Movies in school	*
TV in school	*
Minister	*
Content (religion)	*

It is apparent from Table 5 that all ratings increase over the four grade levels (cf. the column entitled "total linear"). The ratings of radio, TV in school, and minister or teacher in church, however, show a remarkably low increment over grade levels compared with the other nine source ratings.

Peers

The increment in ratings of friends over grade levels vary significantly with concepts. Thus, the lowest increments are found for WAR and CAUSES OF WAR whereas the highest increments are found for PEACE and HUMAN NATURE.

Table 5: D-values for testing the linear component of Grade x Concept interactions (three decimal points were used in the computation).

		WAR	PEACE	CAUSES	PREVENTION	MORALITY	EVITABILITY	NATURE	OVERALL	TOTAL LINEAR
PEERS	Friends	2.7	4.2	2.7	3.9	3.3	3.8	4.6	3.0	28.1
MASS MEDIA	TV at home	No significant differences in the linear component								
	Radio	1.9	.1	0.1	1.0	-.4	-.7	.0	.0	2.0
	Newspapers	4.3	1.1	4.0	1.1	2.4	2.5	2.8	3.5	21.7
	Magazines	6.2	4.1	6.0	4.6	5.5	4.2	5.2	6.0	41.7
	Books	3.8	3.5	6.0	5.3	6.6	5.2	6.0	4.3	40.7
	Movies in theaters	2.8	3.3	3.5	-2.3	3.0	2.9	3.8	4.1	21.1
SCHOOL	Teachers	1.3	.9	3.4	3.3	3.1	3.1	3.2	1.7	20.6
	Textbooks	4.1	2.7	6.2	5.3	5.7	5.3	4.8	3.3	37.3
	Movies in school	3.3	2.1	2.6	1.7	1.9	1.9	1.5	2.7	17.7
	TV in school	-.6	1.1	.1	.6	1.2	1.4	.0	1.3	5.1
RELIGION	Minister	-.7	.0	.7	.6	.5	-.0	1.0	1.3	2.0
	Content	1.3	3.2	1.4	2.3	1.6	1.7	2.5	1.5	15.5

Mass media

Ratings of three mass media sources, viz. newspapers, magazines, and books all increase with grade level on each concept. The ratings of these sources show a great increase over grade levels for WAR and CAUSES OF WAR. This increasing linear trend for ratings of newspapers is notably lower for PEACE and PREVENTION OF WAR. Although the same can be asserted for ratings of magazines and books, the differences are not that striking.

Moreover, magazines and books are of increasing utility with grade for acquisition of orientations towards MORALITY, EVITABILITY and HUMAN NATURE. Radio is of slight increasing utility with grade for arriving at a concept of WAR, whereas of slight decreasing utility for the development of the other concepts. The slopes for movies are all upward except for one concept, viz. PREVENTION OF WAR.

School

The size of the D-values for teachers suggests that the least steep slopes pertain to WAR, PEACE, and OVERALL. Textbooks have been rated higher in utility over the four grade levels on each concept with the least increment pertaining to PEACE. The steepest slope for movies in school pertains to WAR and the least steep slopes pertain to HUMAN NATURE and PREVENTION OF WAR. There are significant differences in linearity over grade levels for TV in school with the steepest upward trend for EVITABILITY.

Religion

A downward trend appears for the ratings of minister or teacher in church for WAR and the steepest upward trend for OVERALL. WAR and CAUSES OF WAR have the least steep slope on ratings of content of religion whereas PEACE, PREVENTION OF WAR, and HUMAN NATURE have the highest increment with grade.

Summary and Conclusions

It has become apparent throughout this paper (in the sections reporting results on the effect of concepts and on interactions grade x concepts) that ratings of the utility of various sources tend to differ mainly between the concepts WAR and CAUSES OF WAR on one hand and the remaining concepts on the other. Hence, in introducing a war-peace informational utility model,

it seems reasonable to group the concepts according to these clusters. In Figure 5 the utility of each source has been classified according to primary, secondary, and tertiary importance. The operational definitions of these groups of sources were arrived at according to empirical data ($\bar{X}_{primary}$=3.9-4.9, $\bar{X}_{secondary}$=2.6-3.8, $\bar{X}_{tertiary}$=1.4-2.5). Furthermore, the data reported on indicate few significant differences in ratings of sources between the two lower grades and between the two higher grades. Hence, grades 5 and 7 as well as grades 10 and 12 have been combined.

TV at home has the highest degree of utility for all concepts. It is of more utility for the war concepts, however, than for the other cluster of concepts. This can be explained by: (1) there is more war material presented on TV at home than material pertaining to peace, prevention of war, morality of war, the question of evitability of war and human nature; (2) war material on TV at home has more impact than material pertaining to the other items (assuming equal time is devoted to both clusters of concepts); or (3) there are interaction effects of (1) and (2). One should note that TV at home is only of secondary utility for 10-12 grade students in the formation of orientations towards peace, war prevention, morality, evitability and human nature. Two other mass media sources (newspapers and magazines) are of primary importance for WAR and CAUSES OF WAR with 10-12 graders; one of these being a primary source for the other concepts as well, viz. newspapers. For the lower grades these two print sources are of secondary importance for war-peace orientations with more utility for WAR and CAUSES OF WAR than for the other concepts. This same conclusion applies to four other secondary sources as well, viz. books, radio, movies in theaters and teachers. Textbooks are of greater utility for the war concepts with 10-12 graders. Mother, father, and friends

are of higher utility for the cluster of five concepts than for the war concepts. Tertiary sources are religion, movies and TV in school. Religion has most impact on orientations towards PEACE and HUMAN NATURE. Movies in school have greater utility for WAR and CAUSES OF WAR. It should be noted that textbooks are of tertiary importance for 5-7 graders (left out of the model) and of secondary importance for 10-12 graders. With the latter, textbooks are of greatest utility in developing war orientations.

It was noted at the beginning of this paper that pre-adults' conception of war in different countries differ and that variables commonly used to explain such differences (e.g., personality variables, age, and social position) were not sufficient to point out cause-effect relationships. It was the purpose of the present paper to assess the relative impact of sources of orientation that have been demonstrated to have utility in developing war-peace orientations and to relate source ratings to the sex and age (grade) variables.

The above model suggests that the communication structure of a social system is a viable independent variable sui generis, in that the relationships between sex and grade are varied. It should be noted, however, that face value analysis does not suggest great differences in source utility between the two social systems of Canada and the U.S. It should not be implied from this, however, that cross-cultural differences do not exist when examining a wider variety of social systems, whichever orientations one chooses to measure. In extending the above model to comprise examples of a cross-section of different communication and information systems, one might employ Galtung's typology of stages of socioeconomic development which consists of eight

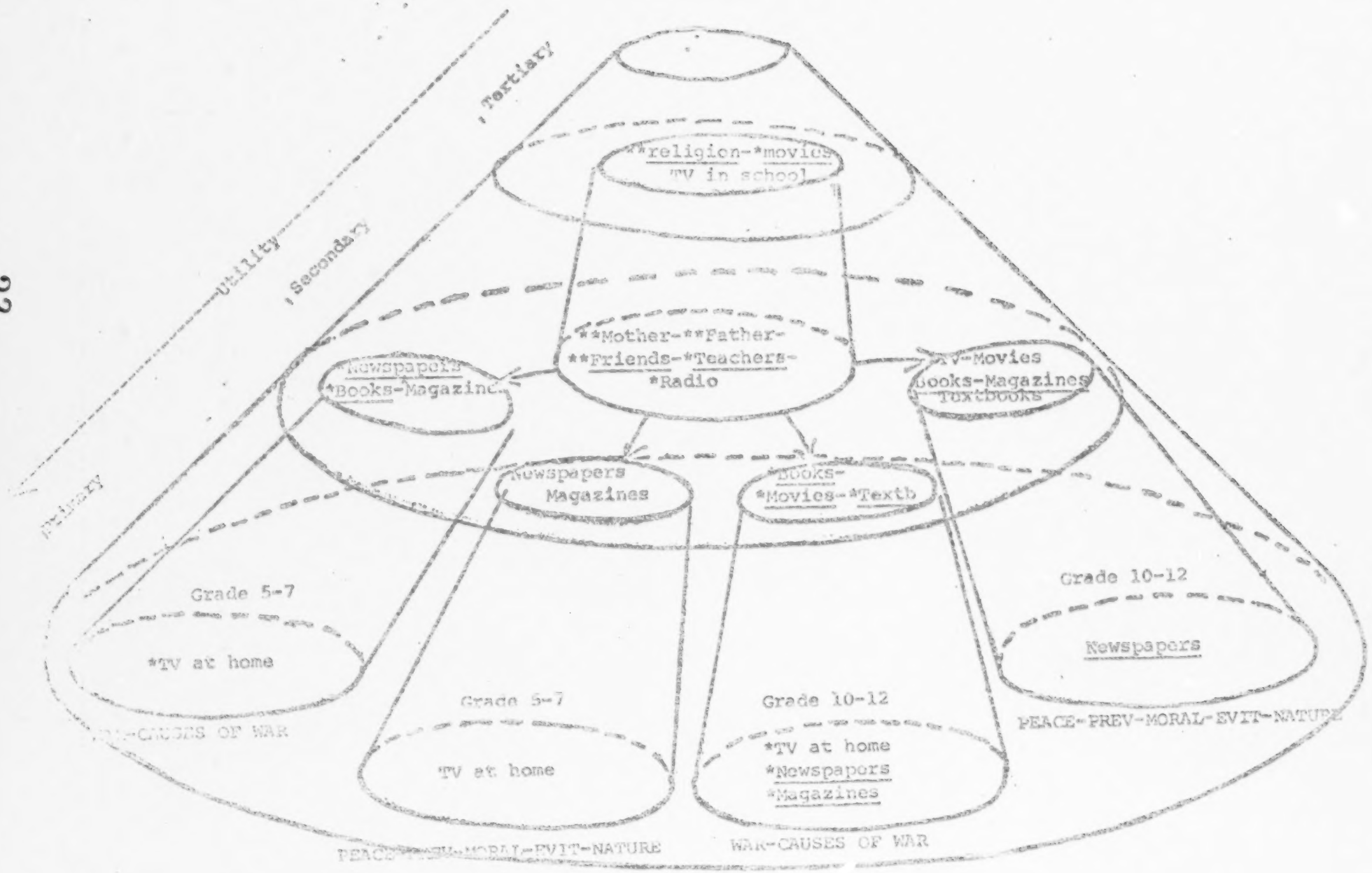

Figure 5: WAR-PEACE INFORMATIONAL UTILITY CONE
(one asterisk signifies greater utility for WAR concepts than for the other concepts; two asterisks signifies the obverse - a line under the name of the source means greater utility for high grades than for low grades)

different criteria, one of which is communication.[16] The primitive stage is characterized by walking, running, rowing and eye and ear information processing. The traditional stage is characterized by transportation by animals, wheels, sailing with dispatches as the basic information processing mechanism. The modern stage is known by its steam and combustion engine and postal, telephonic and telegraphic communication system. Finally, in the neomodern stage, jet rockets and tele-satellite systems have arrived on the scene. Obviously, the model presented would apply mainly to the society at the modern or neomodern stage.

One basic research question that needs to be tackled is the problem of why certain sources are of more utility than others for certain orientations. Is it caused by amount of exposure, type of channel or message (content)? The fact that TV in the home has become of such prime importance in less than two decades suggests that exposure time is the critical variable. However, this contention is not supported by the fact that this medium is of equal utility for 5th and 12th graders alike. Also, the fact that there are significant differences in ratings of this medium pertaining to various concepts, indicate that the content is of more importance than exposure time. Evidently there is a great need for investigating the interplay in effect of communication between type of medium (channel), amount of exposure time and message in a variety of cultural settings around the world.

Notes

1. Aalvik, T., "The Development of Views on Conflict, War, and Peace Among School Children." Journal of Peace Research, No. 2, 1968, p. 180; Cooper, P. "The Development of the Concept of War". Journal of Peace Research, 1965, No. 1, p. 4; Haavelsrud, M. "Views on War and Peace Among Students in West Berlin Public Schools". Journal of Peace Research, No. 2, 1970a, p. 108

2. For an excellent review of the literature until 1969 see: J.V. Torney, L. F. Anderson and H. Targ, "A Review of Existing and Needed Research on the Development of International Orientations in Children and Adolescents" (Included as Chapter IV of A Report to the United States Office of Education - Project 6 - 2908, 1969).

3. Haavelsrud, M. "Learning Resources in the Formation of International Orientations", A paper presented at the National Convention of the Association for Educational Communications and Technology, Philadelphia, Pennsylvania, March 23, 1971, p. 9

4. N. Hollander, "Adolescent's Perceptions of Sources of Orientations to War" (Unpublished Doctoral Dissertation, University of Washington, 1971, p. 96

5. G. Coldevin, "The Effects of Mass Media Upon the Development of Transnational Orientations" (Unpublished Doctoral Dissertation, University of Washington, 1971), p. 89

6. Ibid., pp. 89-90

7. J.V. Torney. L. F. Anderson and H. Targ, op. cit., pp. 226-227

8. Paper scheduled for presentation at the annual convention of the National Council for the Social Studies in Denver, November 23, 1971

9. Haavelsrud, M. "Seminal Agents in the Acquisition of International Orientations" (Unpublished Doctoral Dissertation, University of Washington, 1970b), pp. 19-32.

10. Valuable advice in sample selection was received from the Department of Research and Special Services in Vancouver

11. Allen L. Edwards, Experimental Design in Psychological Research. Holt, Rinehart and Winston, Inc., New York, 1968, p. 273

12. Ibid., p. 275

13. Ibid., pp. 264-267

14. Haavelsrud, op. cit., 1970b, pp. 33-35

15. Ibid., p. 48

16. Aalvik, T., op. cit., p. 179

17. Rosell, Leif, "Children's Views of War and Peace", Journal of Peace Research, No. 3, 1968, p. 270

18. Galtung, J. "On the Future of the International System" Journal of Peace Research, 1967, p. 309